REMARKS

Prior to entry of this Amendment, Claims 1-25 were pending and under consideration. With this Amendment, Claim 1 has been amended and Claims 26 and 27 have been added. Thus, after entry of this Amendment, Claims 1-27 are pending and under consideration.

Claims 1 has been amended to clarify the nature of a background intensity gradient. Claims 26 and 27 concern methods of detection of a background intensity gradient. Support for these amendments can be found at least at page 6, lines 21-27, and also throughout the disclosure and claims as filed. No new matter is added.

Claims Rejected Under 35 U.S.C. Section 101

Claims 1-25 were rejected under 35 U.S.C. Section 101 as allegedly being directed to non-statutory subject matter, in particular the recitation of "outputting … to a memory or a computer". The Examiner asserted that a determination needs to be made as to whether the subject matter produces physical transformation of matter or a useful, concrete and tangible result.

Applicants respectfully submit that the USTPO Official Gazette Notice dated 22 November 2005, entitled "*Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*" ("the OG Notice") contains guidelines for patent examiners. Review of these guidelines in the OG notice indicates that the Examiner's rejection of claims 1-25 fails to comply with the guidelines provided in the OG Notice.

Section IV of the OG Notice explains, in detail, the procedures to be followed to determine whether a claimed invention complies with the subject matter eligibility requirement of 35 USC § 101. References to "physical transformation" and "tangible results" in this procedure appear under Step IV(C) – "*Determine Whether the Claimed Invention Falls Within Sec. 101 Judicial Exceptions – Laws of Nature, Natural Phenomena and Abstract Ideas*." The first thing that Step IV(C) requires the Examiner to do is to "*determine whether* [a claim] *covers either a Sec. 101 judicial exception*." Only ***if*** such a determination is made, does the analysis ***then*** proceed to determine whether the claimed subject matter is nevertheless still patentable subject matter as a practical application of a Sec. 101 judicial exception. The claimed subject matter may nevertheless be patentable subject matter

because, for example, (1) the claim provides a physical transformation (Step IV(C)(1)(a)); or (2) the claim produces a useful, concrete, and tangible result (Step IV(C)(1)(b)).

The Examiner did not attempt to determine whether any or all of claims 1-25 cover a Section 101 judicial exception (Law of Nature, Natural Phenomenon, or Abstract Idea). Rather, the Examiner concluded that claims 1-25 are drawn to a judicial exception with no analysis or explanation supporting this position. The Examiner then directly analyzed the criteria for a practical application of a Section 101 judicial exception. In this analysis, the Examiner stated that the claims and the methods and systmes claimed need to produce a physical transformation of matter or a useful, concrete and tangible result. Applying the criteria for a practical application of a Section. 101 judicial exception to Applicant's claims without first establishing that Applicant's claims are drawn to a judicial exception amounts to a failure to comply with the above-referenced examination guidelines; and constitutes a failure to make a *prima facie* case of unpatentability, as required under In re Oetiker (977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)), as cited in Section D.

Applicant submits that none of claims 1-25 is drawn to a judicial exception because these claims do not cover a law of nature, natural phenomenon, or abstract idea. Claims 1-25 concern methods for detecting a background intensity gradient within a microarray data set, and includes computing metrics for features within the microarray data set. It is respectfully submitted that these claims are clearly therefore not directed to a law of nature or natural phenomenon. Further, Applicant respectfully submits that the claims are not drawn to an abstract idea, since microarray features, and metrics computed therefrom are performed by a physical process. Accordingly, the entire analysis as to where the claims produce a "*practical application*" is not even pertinent under the above-referenced examination guidelines, because the claims are not directed to any Sec. 101 judicial exception in the first place. The Examiner's rejection under 35 U.S.C. §101 fails to comply with the examination guidelines, and fail to establish a prima facie case of unpatentability in accordance with the above guidelines, and should be withdrawn on this ground.

Furthermore, even ***if*** any of the claims 1-25 were directed to a Sec. 101 judicial exception, which they are clearly not, the OG Notice defines "tangible" as being the opposite of "abstract." All that is required is that the claim must set forth a practical application to

produce a real-world result. Here, the claims all are practical applications producing the real-world result of determining a background intensity gradient within a microarray data set.

Accordingly, for at least these reasons, Applicant submits that claims 1-25 are all patentable under 35 U.S.C. § 101. The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-25 under 35 U.S.C. Section 101 as being inappropriate.

Likewise, newly added claims 26 and 27 are pantentable under 35 U.S.C. § 101.

Claims Rejected Under 35 U.S.C. Section 112-Second Paragraph

Claims 1-11 were rejected under 35 U.S.C. Section 112-Second Paragraph for allegedly being incomplete for omitting essential elements. Claim 1, as amended, recites the relationship between a background intensity gradient and the computed convergence metrics for a number of features larger than a threshold value, thus indicating how the computed metrics are used. Withdrawal of the rejection is respectfully requested.

Conclusion

Applicant submits that Claims 1-27 satisfy all of the statutory requirements for patentability and are in condition for allowance. An early notification of the same is kindly solicited.

Respectfully submitted,

/John F. Brady, Reg. No. 39,118/
John F. Brady

IP Administration
Agilent Technologies, Inc.
Legal Department, DL-429
P.O. Box 7599
Loveland, CO 80537-0599

Date: June 18, 2008
Phone: (408) 553-3584